UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,714	01/09/2002	Isaac Bentolila	MET2.PAU.25	6438

23386   7590   09/11/2009

Myers Andras Sherman LLP
19900 MacArthur Blvd.
Suite 1150
Irvine, CA 92612

EXAMINER
NGUYEN BA, HOANG VU A

ART UNIT	PAPER NUMBER
2421	

MAIL DATE	DELIVERY MODE
09/11/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *28 July 2009*.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-26* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-26* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on July 28, 2009 has been entered.

2.   Claims 1-26 are pending. Claims 1, 8 and 12 are independent claims.

Response to Amendments

3.   Per Applicant's request, Claims 1, 8 and 12 have been amended and new claims 22-26

have been added.

Response to Arguments

4.   Applicants' arguments have been fully considered but they are not moot in view of the

new grounds of rejection.

Claim Rejections – 35 USC § 103

5.   The following is a quotation of the 35 U.S.C. § 103(a) which form the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not negatived by the manner
> in which the invention was made.

6.   Claims 1 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO

00/33160 by Charles Eldering ("Eldering") in view of U.S. Patent Application Publication No.

2008/0040749 by Hoffberg et al. ("Hoffberg").

> It should be noted that hereinafter the use of the clause "see at least" should be interpreted that the cited
> portions that follow the clause are not the only portions that are considered to be relevant. Should Applicant find
> that the cited portions are not relevant, other portions of the disclosure of the prior art reference will be provided as
> additional evidence and/or context to the relevancy of the previously cited portions. Since the evidence is from the

same reference, the introduction of the additional evidence in response to Applicant's arguments should not therefore be considered to be that of new grounds of rejection.

Claim 1

Eldering discloses at least

a server-side system (see at least FIG. 1, element 100) *for evaluating television behavioral viewing data from a plurality of users and for categorizing the data into category groups* (see at least FIG. 1, Subscriber Characterizing System);

a clustering engine included in the server-side system for receiving the television behavioral viewing data, processing the television behavioral viewing data, and generating user profiles targeting the category groups (see at least FIG. 1, Subscriber Characterizing System);

a server-side system *adapted to classify a user into at least one of the category groups based on advertising category prototypes* (e.g., p. 15, lines 24-27; p. 10, lines7-14) *received from the clustering engine* (see at least p. 15, line 16 – p. 16, line 31; p. 19, lines 17-22; p. 20, lines 13-25; the claimed category groups are interpreted to be similar to Eldering's demographic groups in FIG. 10B);

a contextual behavioral profiling agent for deriving profiling information related to a television user's viewing behavior with content and usage-related preferences (p. 10, line 31 – p. 11, line 10; p. 11, lines 18 – p. 12, line 9, e.g., "subscriber profile vector" at p. 15, line 28); *and*

a behavioral model database for storing in the system the profiling information derived by the profiling agent (p. 12, lines 10-14).

While the classifying of user into category group (e.g., Eldering's program /advertisement characteristics vector), the contextual behavioral profiling agent (e.g., Eldering's subscriber profile), the behavioral model database (e.g., storage medium) are described for a client-server system where most of the above components are located on the server side, Eldering also provides for a set up where the system can be run locally in a television set-top (see at least Abstract and p. 36, line 5 -- p. 38, line 38).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Eldering system so that the subscriber characterization system (e.g., the claimed evaluating of behavioral viewing data, the group categorizing and the clustering engine) is located on the server side and the program/advertisement characteristic vector, subscriber profile, the resulting characterization information (e.g., the claimed classifying agent, the contextual behavioral profiling agent, the behavioral model database) are located on the client-side. One skilled in the art would have been motivated to implement such a modification in order to allow subscriber characterization information to be stored locally at a subscriber location and directly controlled by the subscriber (Eldering; p. 12, lines 10-17).

Eldering does not specifically disclose that categorizing data into *non-demographically classifiable* category groups as recited in the first limitation of Claim 1.

However, in an analogous art, Hoffberg discloses that stored information regarding prior sessions, current state of the machine, etc. can be used predict operation the most probable next action to be taken by the user (see at least 0526-0527]; [0370-0373]). Because of the dependence of the information upon a particular user and how s/he currently and previously uses the information, the information are not standard demographic information and thus cannot be classified according to standard demographic group category. Furthermore, the information can be sent to a server-side system, as a matter of design choice, for storing and being analyzed thereon.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the non-demographically classifiable data as described in Hoffberg in Eldering because the use of these data would improve the accuracy of prediction of user's preferences.

Claim 22

The rejection of base claim 1 is incorporated. Eldering-Hoffberg further discloses *wherein the television behavioral viewing data from the plurality of users is used to create the category groups* (Eldering; see at least p. 10, last paragraph and p.11, 1st paragraph and use of heuristic rules 160 in FIG. 1 being adapted to store the non-demographically data taught in Hoffberg to create category groups).

Claim 23

The rejection of base claim 1 and intervening claim 22 is incorporated. Eldering-Hoffberg further discloses *wherein the profiling information is used to determine a category group to associate a user with* (Eldering; see at least FIG. 1, elements 190,192).

Claim 24

The rejection of base claim 1 is incorporated. Eldering-Hoffberg further discloses *wherein the television behavioral viewing data includes contextual transition data* (Eldering; see at least p. 10, last paragraph; p. 11, 1st paragraph; p. 16, 2nd and 3rd paragraphs; p. 20, lines 1-25; p. 25, last paragraph).

Claim 25

The rejections of the base claim 1 and intervening claim 24 are incorporated. Eldering-Hoffberg further discloses *wherein the contextual transition data is based on day of week and time of day* ((Eldering; see at least p. 10, last paragraph; p. 11, 1st paragraph; p. 16, 2nd and 3rd paragraphs; p. 20, lines 1-25; p. 25, last paragraph).

Claim 26

The rejections of the base claim 1 and intervening claim 24 are incorporated. Eldering-Hoffberg further discloses *wherein the contextual transition data is based on a previous type of television program* (Eldering; see at least p. 10, last paragraph; p. 11, 1st paragraph; p. 16, 2nd and 3rd paragraphs; p. 20, lines 1-25; p. 25, last paragraph).

7.   Claims 2-4 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/33160 by Charles Eldering ("Eldering") in view of U.S. Patent Application Publication No. 2008/0040749 by Hoffberg et al. ("Hoffberg") and further in view of U.S. Patent No. 6,738,978 to Hendricks ("Hendricks978") and of U.S. Patent No. 6,088,722 to Herz et al. ("Herz'722").

Claims 2-3 and 5-7

The rejection of base claim is incorporated. For features recited in Claims 2-3 and 5-7, see rejections and examiner's response to Applicant's arguments in previous Office actions.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Eldering-Hoffberg with Hendricks978-Herz722 because the combination would improve customer targeting advertisement.

Claim 4

The rejections of the base claim 1 and intervening claim 2 are incorporated. Eldering-Hoffberg-Hendricks978-Herz722 further discloses *wherein said clustering engine is programmed to generalize user profiles in a targeted category group into an aggregation representative of all dimensions most strongly in common for the targeted group and all dimensions most unique across several of the targeted groups* (Eldering; see at least FIG. 10B).

8.   Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,798,785 to Hendricks ("Hendricks785") in view of U.S. Patent No. 6,177,931 to Alexander and further in view of WO 00/33160 by Charles Eldering ("Eldering") and further in view of U.S. Patent Application Publication No. 2008/0040749 by Hoffberg et al. ("Hoffberg").

Claim 8

Hendricks785 discloses at least *in an interactive display system* (see at least FIG. 1) *having a head-end side for distributing program content* (see at least FIG. 1, element 208) *that has been pruned for a category, and a client side* (see at least FIG. 1, element 202) *receiving the program content and selectively displaying the program content in accordance with the selection of a user*(see at least 4:45-48), *a preference engine for determining a preferred program content for the user* (see at least 29:26-28 teaching microprocessor element 602), *comprising:*

   a user monitoring device (see at least 29:26-28 teaching microprocessor element 602) *receiving the pruned program content at the client side for recording contextual transition behaviors profiling the user to continually build a user profile of preferences*

and contextual transition behaviors associated with the user (see at least 29:33-43 teaching recording contextual behaviors and storing them in memory and learning a subscriber's favorite channels).

Hendricks785 does not specifically disclose:

> *a program distributing service at the head-end side for providing to the user the program content in accordance with the user profile.*

However, in an analogous art, Alexander teaches a device (5:20-55; a device which would make up a cable box) for providing to the one or more users the program content in accordance with the user's demographic information and with the contextual transition behavior profile (see at least 30:59-67 teaching automatically tuning to a channel because of the user profile and 28:10-53 teaching the EPG recording demographic and contextual transition behavior profile information).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the user monitoring system of Hendricks785 with the user preference system of Alexander for the purpose of customizing the EPG to provide custom advertising to the viewer based on the user profile (Alexander; 2:17-20).

The combination Hendricks785-Alexander does not specifically disclose the remaining feature of the claim.

However, in an analogous art, Eldering discloses:

> *wherein a user is classified at the client-side into at least one category group based on category prototypes received from the head-end side* (e.g., p. 15, lines 24-27; p. 10, lines 7-14) *received from the clustering engine* (see at least p. 15, line 16 – p. 16, line 31; p. 19, lines 17-22; p. 20, lines 13-25; the claimed category groups are interpreted to be similar to Eldering's demographic groups in FIG. 10B).

While the classifying of user into category group (e.g., Eldering's program /advertisement characteristics vector) is described for a client-server system where most of the above components are located on the server side, Eldering also provides for a set up where the system can be run locally in a television set-top (see at least Abstract and p. 36, line 5 -- p. 38, line 38).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Eldering system so that the subscriber characterization system is located on the server side and the program/advertisement characteristic vector, subscriber profile, the resulting characterization information are located on the client-side. One skilled in the art would have been motivated to implement such a modification in order to allow subscriber characterization information to be stored locally at a subscriber location and directly controlled by the subscriber (Eldering; p. 12, lines 10-17).

Furthermore and in response to Applicant's arguments that the claimed *contextual transition behavior profiling* is absent in Hendricks795-Alexander, the Office respectfully disagrees with this assertion and while it is maintained that the claimed feature is obvious over the combination, the Office further cites the following portion of Eldering as being relevant to the claimed feature (p. 10, line 31 – p. 11, line 10; p. 11, lines 18 – p. 12, line 9, e.g., "subscriber profile vector" at p. 15, line 28).

Hendricks785-Alexander-Eldering does not specifically disclose that *a user is classified at the client-side into at least one category group based on advertising non-demographically classifiable category prototypes received from the head-end side* as recited in the claim.

However, in an analogous art, Hoffberg discloses that stored information regarding prior sessions, current state of the machine, etc. can be used predict operation the most probable next action to be taken by the user (see at least 0526-0527]; [0370-0373]). Because of the dependence of the information upon a particular user and how s/he currently and previously uses the information, the information are not standard demographic information and thus cannot be classified according to standard demographic group category. Furthermore, the information can be sent to a server-side system, as a matter of design choice, for storing and being analyzed thereon.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the non-demographically classifiable data as described in Hoffberg in Hendricks785-Alexander-Eldering because the use of these data would improve the accuracy of prediction of user's preferences.

Claims 9-10

The rejection of the base claim 8 is incorporated. For features recited in Claims 9-10, see rejections and examiner's response to Applicant's arguments in previous Office actions.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Hendricks785-Alexander-Eldering with Hoffberg because the combination would improve customer targeting advertisement.

9.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,798,785 to Hendricks ("Hendricks785") in view of U.S. Patent No. 6,177,931 to Alexander and further in view of WO 00/33160 by Charles Eldering ("Eldering"), further in view of U.S. Patent Application Publication No. 2008/0040749 by Hoffberg et al. ("Hoffberg") and further in view of U.S. Patent No. 5,801,747 to Bedard.

Claim 11

See rejection in Claim 8 above and in previous Office actions.

10.   Claims 12, 13, 15-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,738,978 to Hendricks ("Hendricks978") in view of WO 00/33160 by Charles Eldering ("Eldering").

Claim 12

Hendricks978 discloses at least *in a program content delivery system* (see at least FIG. 5) *having a head-end side* (see at least FIG. 1, element 208) *and a client side* (see at least FIG. 1, element 220)*, a system for targeting program delivery* (see at least 35:64-65)*, comprising:*

> *a central data system at the head-end side which receives viewing information*
> *from a plurality of users* (see at least 36:17-23 and FIG. 1, element 214 teaching a
> network controller receiving and storing information which is located at the head end)
> *selected from the group consisting of watch data* (see at least 36:29-35)*, watch start time*
> *data, watch duration data, and watch channel data, demographic information describing*

a program user (see at least 36:17-23)*, and electronic program guide information with metadata describing a program content;*

a demographic cluster knowledge base acquirer receiving from the client side behavioral data of the user (see at least 36:14-23 teaching receiving demographic data to generate a matrix, the collected data from groups of subscribers being considered as clusters) *, the knowledge base acquirer outputting a knowledge base based on the viewing information in the form of a transition matrix with weight sets* (see at least 78:13-17 teaching outputting a matrix and 71:3-10 teaching transmitting weighted information to the set top terminals and 37:1-5)*, the transition matrix used for predicting a category group of the user based on the behavioral data of the user* (see at least 37:1-5 teaching selecting a group for a user and 36:18-24 teaching the matrices being developed using demographic information so that the selecting of a user by the matrix is using demographic data to select a group for the user)*; and*

a program content generating module (see at least FIG. 17, element 428 generating program content) *disposed at the head-end side and providing to the client side streams of program content based on the predicted category group of the user* (see at least 37:1-5 teaching selecting a group for a user and 36:18-24 teaching the matrices being developing using demographic data to select a group for the user and 38:56-59 teaching three methods for streaming/delivering advertisements to the user). Hendricks978 does not specifically disclose the remaining feature of the claim. However, in an analogous art, Eldering discloses:

wherein a user is classified into at least one category group based on advertising category prototypes transmitted from the head-end side (e.g., p. 15, lines 24-27; p. 10, lines7-14) *received from the clustering engine* (see at least p. 15, line 16 – p. 16, line 31; p. 19, lines 17-22; p. 20, lines 13-25; the claimed category groups are interpreted to be similar to Eldering's demographic groups in FIG. 10B).

While the classifying of user into category group (e.g., Eldering's program /advertisement characteristics vector) is described for a client-server system where most of the above components are located on the server side, Eldering also provides for a set up where the

system can be run locally in a television set-top (see at least Abstract and p. 36, line 5 -- p. 38, line 38).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Eldering system so that the subscriber characterization system is located on the server side and the program/advertisement characteristic vector, subscriber profile, the resulting characterization information are located on the client-side. One skilled in the art would have been motivated to implement such a modification in order to allow subscriber characterization information to be stored locally at a subscriber location and directly controlled by the subscriber (Eldering; p. 12, lines 10-17).

Furthermore and in response to Applicant's arguments that the claimed *transition matrix* is absent in Hendricks978, the Office respectfully disagrees with this assertion and while it is maintained that the claimed feature is obvious over the combination, the Office further cites the following portion of Eldering as being relevant to the claimed feature (see at least FIG. 10B; p. 10, line 31 – p. 11, line 10; p. 11, lines 18 – p. 12, line 9, e.g., "subscriber profile vector" at p. 15, line 28).

Claims 13, 15, 16, 17, 18 and 21

The rejection of base claim 12 is incorporated. For features recited in Claims 13, 15, 16, 17, 18 and 21, see above rejections and previous Office actions.

11.   Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,738,978 to Hendricks ("Hendricks978") in view of WO 00/33160 by Charles Eldering ("Eldering"), as applied to base claim 12, and further in view of U.S. Patent No. 6,088,722 to Herz.

Claim 14

The combination Hendricks978-Eldering does not specifically disclose the feature recited in Claim 14.

However, in an analogous art, Herz discloses *wherein said demographic cluster knowledge base acquirer is based on a hidden Markov model* (48:67 and 29:1-4).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use Herz in the combination Hendricks978-Eldering for the purpose of anticipating user requests so data can be downloaded in advance (Herz; 48:67 and 49:1-4).

Claim 19

The combination Hendricks978-Eldering does not specifically disclose the feature recited in Claim 19.

However, in an analogous art, Herz teaches *wherein the transition matrix is a two-dimensional matrix with transitions from television channelsin normal form to television channels in temporal form* (see at least 48:67; 49:1-5 teaching a transition matrix and by definition a matrix has rows and columns thus at least two dimensions; the matrix is temporal because as information is updated the matrix would change).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Markov model as taught in Herz in the combination Hendricks978-Eldering for the purpose of anticipating user requests so data can be downloaded in advance (see at least 48:67 - 49:4).

12.   Claim 20 is are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,738,978 to Hendricks ("Hendricks978") in view of WO 00/33160 by Charles Eldering ("Eldering"), as applied to base claim 12, further in view of U.S. Patent No. 6,088,722 to Herz, as applied to Claim 14 and further in view of A tutorial on Hidden Markov Models and Selected Applications in Speech Recognition by Rabiner et al. ("Rabiner").

Claim 20

The combination Hendricks978-Eldering further discloses:

> *wherein said demographic cluster knowledge base acquirer is configured to parameterize the user's behavior with a double pseudo hidden process* (Hendricks978; see at least columns 18-23 wherein multiple sub matrixes are being analyzed from the database and this analysis is done at the network controller, so it is hidden from the subscriber), *and to define a low-level statistical state machine with the active behavioral*

cluster (Hendricks978; see at least 36:18-23) *and top-level statistical state machine with active behavioral clusters and an interaction between the active behavioral clusters* (Hendricks978; 36:24-28 teaching combining the matrixes).

The combination Hendricks978-Eldering does not specifically disclose that the double pseudo process is *a Markov process*.

However, in an analogous art, Herz teaches a Markov process (see at least 48:67 – 49:7).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Markov model in the combination Hendricks978-Eldering of the purpose of anticipating user requests so data can be downloaded in advance (48:67 – 49:4).

The combination Hendricks978-Eldering-Herz does not specifically disclose that the Markov process is *random*.

However, in an analogous art, Rabiner teaches random processing (p. 257, second column paragraph starting with "[t]hese are …" which teaches statistical modeling with random processing in relation to hidden Markov processes).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use Rabiner teachings in the combination Hendricks978-Eldering-Herz for the purpose of using a random sample of the data to avoid excessive processing and calculations.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:30 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2400 Group receptionist (571) 272-2400.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Hoang-Vu Antony Nguyen-Ba/
Primary Examiner, Art Unit 2421
September 9, 2009